



COUNTY OF SAN DIEGO
Great Government Through the General Management System – Quality, Timeliness, Value
DEPARTMENT OF HUMAN RESOURCES

CLASS SPECIFICATION

CLASSIFIED

JUNIOR PUBLIC HEALTH MICROBIOLOGIST
PUBLIC HEALTH MICROBIOLOGIST
SENIOR PUBLIC HEALTH MICROBIOLOGIST

Class No. 004320
Class No. 004346
Class No. 004353

■ CLASSIFICATION PURPOSE

To perform microbiological tests on specimens from human, animal, environmental and food sources; and to perform related work as required.

■ DISTINGUISHING CHARACTERISTICS

Positions in this class series are allocated only to the Public Health Division of the Health and Human Services Agency (HHSa).

Junior Public Health Microbiologist:

This is the entry-level class in the series. Under immediate supervision, incumbents receive training in performing microbiological tests. Incumbents in this class acquire work experience, knowledge and skills in order to take the State Department of Health Services' examination to become certified as a Public Health Microbiologist.

Public Health Microbiologist:

This is the journey-level class in the series. Under general supervision, this class is responsible for conducting a wide variety of microbiological tests on specimens from human, animal, environmental, and food sources. Incumbents in this class are fully certified as Public Health Microbiologists.

Senior Public Health Microbiologist:

This is the lead-level class in the series. Under direction, this class provides technical guidance, direction and training to lower level microbiologists and laboratory staff. Incumbents in this class are fully certified as Public Health Microbiologists.

■ FUNCTIONS

The examples of functions listed in the class specifications are representative but not necessarily exhaustive or descriptive of any one position in the classes. Management is not precluded from assigning other related functions not listed herein if such duties are a logical assignment for the position.

Essential Functions:

1. Performs laboratory work involved in conducting bacteriology, serology, parasitology, mycology, virology, and other tests, and analyzes specimens to determine the presence of diseases.
2. Performs laboratory procedures using microscopy, culture, biochemical tests, automated instruments, and molecular biology techniques.
3. Isolates and/or identifies organisms and interprets microbiological data.
4. Conducts tests for food borne illnesses.
5. Conducts bacteriological examinations of water and food products.
6. Analyzes and interprets test data and prepares reports.
7. Consults with physicians, communicable disease investigators, epidemiologists, environmental health personnel, and other staff members regarding test results.
8. Operates a wide variety of laboratory equipment such as pH meters, centrifuges, incubators, microscopes, thermocyclers, diluters, and plate washers.

9. Maintains logs, records, and worksheets.
10. Enters data into computer and generates reports.
11. Uses computer software programs to perform analyses.
12. Maintains work area and equipment.
13. Provides responsive, high quality service to County employees, representatives of outside agencies and members of the public by providing accurate, complete and up-to-date information, in a courteous, efficient and timely manner.

Public Health Microbiologist

Essential Functions:

All the functions listed above and

1. Performs complex virological and microbiological testing.
2. Prepares written reports.
3. May assist lower level laboratory personnel in performing laboratory tests or other procedures.
4. May assist in providing training to Junior Public Health Microbiologists and other laboratory staff.

Senior Public Health Microbiologist

Essential Functions:

All the functions listed above and

1. Trains and reviews the work of subordinate microbiologists and laboratory staff.
2. Monitors workflow and oversees quality management activities for laboratory sections.
3. Develops and validates new assays and testing procedures and quality management procedures pertaining to microbiological tests.
4. Writes and updates procedure manuals.
5. Presents findings on technical laboratory reports to groups of persons and describes and explains posters, charts, graphs, or other visual displays.
6. Assists in developing testing and quality control procedures.
7. Presents oral reports and poster sessions at scientific meetings.

■ KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of:

The following apply to all classes:

- Microbiology principles and theory including bacteriology, virology, mycology, serology and parasitology.
- Methods and techniques used to detect, isolate, and identify microorganisms from human, environmental and food sources.
- Methods and procedures used to identify antigens, antibodies, and nucleic acids in body fluids.
- Operation and care of laboratory equipment and analyzers.
- Common communicable diseases including causes, transmission and control methods.
- Regulations related to public health and safety, including familiarity with County and State procedures.
- Current informational sources in microbiology.
- County customer service objectives and strategies.

Public Health Microbiologist (in addition to the above):

- Laboratory testing processes utilizing molecular biology theories and concepts.
- Quality assurance techniques for laboratory tests.

Senior Public Health Microbiologist (in addition to the above):

- Principles and practices of lead work.
- Principles and practices pertaining to developing and validating assays and quality management procedures for a public health laboratory.

Skills and Abilities to:

The following apply to all classes:

- Perform laboratory tests and procedures accurately and completely.
- Record, analyze and interpret test results.
- Read, understand, and interpret technical information and regulations.
- Understand and follow safety practices that apply to a laboratory setting.
- Operate and make minor adjustments and calibrations to laboratory equipment such as pH meters, centrifuges, incubators, microscopes, diluters, and plate washers.
- Input and retrieve data using computer.
- Maintain logs and worksheets.
- Communicate effectively orally and in writing.
- Establish effective working relationships with management, employees, employee representatives and the public representing diverse cultures and backgrounds.
- Treat County employees and representatives of outside agencies with courtesy and respect.
- Exercise appropriate judgment in answering questions and releasing information; analyze and project consequences of decisions and/or recommendations.

Public Health Microbiologist (in addition to the above):

- Monitor quality assurance measures and take appropriate actions as needed.

Senior Public Health Microbiologist (in addition to the above):

- Perform lead work over lower level classes.
- Develop and implement new assays, testing procedures, and quality management procedures as applied to a public health laboratory.

■ EDUCATION/EXPERIENCE

Education, training, and/or experience that demonstrate possession of the knowledge, skills and abilities listed above. Examples of qualifying education/experience are:

Junior Public Health Microbiologist:

A Public Health Microbiologist Trainee letter of approval from the State of California, Department of Health Services, Laboratory Field Services.

To obtain this letter of approval, contact the State of California, Department of Health Services, Laboratory Field Services.

Note: Incumbents in this position must pass the California State Public Health Microbiologist Certification exam during the probation period or be terminated from employment in this class.

Public Health Microbiologist:

Certification as a Public Health Microbiologist issued by the State of California, Department of Health Services, Laboratory Field Services Office is required, OR a letter from the California Department of Health Services indicating that the employee has passed the state Public Health Microbiologist certification examination.

Senior Public Health Microbiologist:

Current certification as a Public Health Microbiologist issued by the State of California, Department of Health Services, Laboratory Field Services Office, AND,

1. Three (3) years, within the last six (6) years, of experience performing highly complex microbiology or immunology tests in a public health laboratory or in a laboratory that is certified by or exempt from the Clinical Laboratory Improvement Amendment of 1992; OR,
2. Two (2) years of experience as a certified Public Health Microbiologist in a public health laboratory approved by the State of California.

Note: Possession of a master's degree from an accredited college or university with a major in medical or public health bacteriology, microbiology, or a closely related field is a desirable qualification.

■ ESSENTIAL PHYSICAL CHARACTERISTICS

The physical characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of the classifications. Reasonable accommodation may be made to enable an individual with qualified disabilities to perform the essential functions of a job, on a case-by-case basis.

Continuous upward and downward flexion of the neck. Frequent: sitting, twisting of neck and waist, repetitive use of hands, simple grasping, power grasping and fine manipulation. Occasional: walking, standing, bending of neck and waist, squatting, reaching above and below shoulder level, pushing and pulling, and lifting and carrying up to 50 pounds. Incumbents operate foot controls or use repetitive foot movements on the hand washing sinks.

■ SPECIAL NOTES, LICENSES, OR REQUIREMENTS

Licenses

A valid California class C driver's license, which must be maintained throughout employment in these classes, is required at time of appointment, or the ability to arrange necessary and timely transportation for field travel. Employees in these classes may be required to use their own vehicle.

The possession of a current license as a Clinical Laboratory Scientist by the State of California is desirable at the time of application.

Certification/Registration

Public Health Microbiologist and Senior Public Health Microbiologist:

The possession of a current certification as a Public Health Microbiologist issued by the State of California, Department of Health Services, Laboratory Field Services Section, OR a letter from the California Department of Health Services indicating that the applicant has passed the state Public Health Microbiologist certification examination.

Working Conditions

The primary work environment is a public health laboratory. Incumbents are required to work with pathogenic organisms including HIV, drug-resistant pathogens, bio-terrorism agents, acids, and caustic and volatile chemicals. Incumbents must be willing to be immunized against infectious agents encountered in the laboratory including Hepatitis B and rabies. Incumbent must be willing to take skin tests, X-rays, and blood tests. Incumbents use automated instruments, face shields, and respirators. Incumbents are exposed to bio-hazardous materials such as HIV, drug resistant pathogens, and bioterrorism agents.

Incumbents are required to work evenings, weekends and holidays on an occasional basis. Incumbents must be available on call on a 24-hour, seven-day basis for assigned periods.

Background Investigation

Must have a reputation for honesty and trustworthiness. Misdemeanor and/or felony convictions may be disqualifying depending on type, number, severity, and recency. Prior to appointment, candidates will be subject to a background investigation.

Probationary Period

Incumbents appointed to permanent positions in these classes shall serve a probationary period of 6 months (Civil Service Rule 4.2.5).

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